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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,235	09/24/2004	Gerard Eduard Rosmalen	NL 020290	1784

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

GUPTA, PARUL H

ART UNIT PAPER NUMBER

2656

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/509,235	Applicant(s) ROSMALLEN, GERARD EDUARD	
	Examiner Parul Gupta	Art Unit 2656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-8 are pending for examination as interpreted by the examiner. The IDS filed on 9/24/04 was considered.

Specification

2. The disclosure is objected to because of the following informalities: misspelling of the word "focussing" throughout the document (examples include but are not limited to lines 10-12 and 29 of page 1, lines 1-3 and 14-17 of page 2, etc.) and lack of headings.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

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- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

4. Claims 1-8 are objected to because of the following informalities: misspelling of the word "focussing" in each claim (examples include but are not limited to lines 8-11 and 16-17 of claim 1 and within the last 3 lines of claims 2-7). Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakabayashi et al., US Patent 4,669,073.

Regarding claim 1, Wakabayashi et al. uses to teach an optical disc apparatus (figures 1-3) for recording and/or reproducing information, comprising: a supporting assembly (32); a spindle motor (30), associated with the supporting assembly, having a spindle with a spindle axis (portion above element 30) for rotating an optical disc supported by the spindle about the spindle axis ("rotating means" of column 2, lines 42-45); an optical lens unit (column 3, lines 35-58) associated with the supporting assembly

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for scanning an information surface of said optical disc, and comprising: a focussing lens assembly with a movable focussing lens (38) having a focussing lens area bounded by a focussing lens periphery (36a, 36b, and 37) and a focussing axis intersecting said focussing lens area, said focussing lens assembly being adapted for focussing an optical beam on said information surface (column 2, lines 59-64); a swing arm assembly (33 and 34) comprising a generally elongate swing arm structure supporting said focussing lens assembly (elements 40-43) at a free end, the swing arm assembly being rotatable about a swing axis (M) spaced from said free end and directed substantially perpendicularly to the swing arm structure and generally parallel to said spindle axis (portion above element 30), the swing arm assembly also comprising a movable magnetic focussing means (39) provided near said free end of the swing arm assembly for driving said focussing lens along said focussing axis so as to focus said optical beam on the optical disc information surface; the optical disc apparatus also comprising: a stationary magnetic focussing means ("focusing magnetic circuit" comprising 40a, 40b, 41a, 41b, and 42) associated with the supporting assembly for magnetically cooperating, through an intermediate air gap (44), with said movable focussing means ("focusing coil" 39) in order to generate a magnetic force vector having a vector component parallel to said focussing axis (M) so as to drive the focussing lens assembly along said focussing axis, the stationary and movable magnetic focussing means (39, 40a, 40b, 41a, 41b, and 42) being disposed and cooperating such that said force vector component intersects said focussing lens area. For further explanation, see corresponding descriptions in column 3, lines 32-58.

Regarding claim 2, Wakabayashi et al. teaches an optical disc apparatus as claimed in claim 1, wherein said force vector component generally coincides with the focussing axis of said focussing lens. (As Wakabayashi has the same structure of magnets as the applicant, there must be a force vector component that similarly is perpendicular to the surface of the optical disk. As the applicant states in paragraph 0005, "Any magnetic force vector acting through the air gap on the focussing coil of the movable magnetic focussing means of the prior art arrangement described will exert on the focussing lens not only a force along the focussing axis, but also a perpendicular force." This means that a similar structure will inherently yield a similar result of a component that coincides with the focusing axis of the lens.)

Regarding claim 3, Wakabayashi et al. uses figure 1 to teach an optical disc apparatus as claimed in claim 1, wherein the optical lens assembly comprises, near said free end of the arm assembly, a perpendicularly reflecting optical element (35) connected to the focussing lens, having a reflective surface on the side of the focussing lens which is directed away from the information surface of the optical disc, when supported by the spindle, and causes reflection of a laser beam travelling in the general direction between the swing axis and the focussing axis so as to travel through the focussing lens generally along the focussing axis, and the movable magnetic focussing means (39) are connected to the reflecting element in a position on the side of said reflecting surface which is directed away from the movable focussing lens. For further explanation, see corresponding descriptions in column 3, lines 59 through column 4, line 4.

Regarding claim 4, Wakabayashi et al. teaches an optical disc apparatus as claimed in claim 3, wherein the swing arm assembly is bounded by spaced virtual parallel flat planes (36a and 36b) extending perpendicularly to the swing axis, a first plane being nearer to the optical disc (36a), when supported by the spindle, and a second plane (36b) being more remote from said optical disc; at least a portion of the reflecting element (35) is inwardly spaced from said second plane, so that an intermediate space is provided between the reflecting element and said second plane; and the stationary magnetic focussing means extend into said intermediate space between the reflecting element and said second plane, thus occupying at least a portion of said intermediate space. (Although the focusing coil of element 39 is what really occupies the intermediate space, it serves the same purpose as the stationary focusing means.)

Regarding claim 5, Wakabayashi et al. uses figure 1 to teach an optical disc apparatus as claimed in claim 2, wherein the movable (39) and stationary (40a, 40b, 41a, 41b, and 42) magnetic focussing means cooperate through an air gap (44) which is generally parallel to said reflecting surface of the reflecting element.

Regarding claim 6, Wakabayashi et al. uses figure 1 to teach an optical disc apparatus as claimed in claim 1, wherein the stationary magnetic focussing means are configured as arcuate permanent magnetic circuit means (elements 40-42) and the movable magnetic focussing means (39) are configured as electrical magnetic coil means.

Regarding claim 8, Wakabayashi et al. teaches in column 3, lines 32-46 and figures 1 through 3 an optical disc apparatus as claimed in claim 1, wherein the swing arm structure comprises two spaced elongate generally parallel flat resilient arm elements (36a and 36b) which extend between the swing axis and the focussing lens assembly (39, 40a, 40b, 41a, 41b, and 42), and are interconnected (via "attachment member" of element 37) at or near the free end of the swing arm assembly by the focussing lens assembly (39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakabayashi et al.

Wakabayashi et al. teaches an optical disc apparatus as claimed in claim 6, wherein the reflecting surface of the focussing lens assembly is disposed in an inclined plane relative to the swing axis of the swing arm assembly (shown in figure 6 and explained in column 6, lines 3-5); said movable electrical magnetic coil means (element 39 of figure 1) are disposed parallel to the reflecting surface; and said stationary magnetic circuit means (elements 40-42 of figure 1) comprise a face directed towards said movable electrical magnetic coil means (element 39 of figure 1), such that the said air gap (element 44 of figure 1) between said movable electrical magnetic coil means

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and said stationary magnetic circuit means is disposed generally parallel to said reflective surface (element 35 of figure 1) of the focussing lens assembly.

Wakabayashi et al. does not teach "said movable electrical magnetic coil means are disposed generally in an inclined plane; and said stationary magnetic circuit means comprise an inclined face such that the said air gap between said movable electrical magnetic coil means and said stationary magnetic circuit means is disposed in an inclined plane."

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the magnetic coil and circuit to be on an inclined plane in order to be parallel to the reflecting surface. The benefits of having the magnetic coil and circuit be parallel to the reflecting surface are similar to the first embodiment of the invention in that it creates high stability even under extreme movement by the swing arm assembly (column 4, lines 28-35; Wakabayashi). Thus, it would have been routine experimentation and optimization in the absence of criticality to have the entire structure of the magnetic coil and circuit disposed in an inclined plane

Conclusion

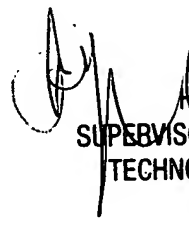
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Musha, US Patent 4,386,823, has the same general purpose as the applicant. Miyagi et al., US Patent 5,748,579, also has the same general purpose. Nakamura et al., US Patent Publication 2004/0190403 shows further work done in the art since the time of the applicant's invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 8:30 AM to 7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PHG


HOA T. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
11/9/06